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Item 3(e) of the provisional agenda
Reporting from and review of Parties included in Annex I to the Convention
Report on national greenhouse gas inventory data from Parties included in Annex I to the Convention for the period 1990–2012

National greenhouse gas inventory data for the period 1990–2012

Note by the secretariat*

Summary

All 43 Parties included in Annex I to the Convention (Annex I Parties) submitted their greenhouse gas (GHG) inventory common reporting format (CRF) tables and national inventory reports (NIRs) in 2014. By the deadline of 15 April 2014, CRF tables from all 43 Parties and NIRs from 40 Parties had been received. Over the period 1990–2012, total aggregate GHG emissions excluding emissions and removals from land use, land-use change and forestry (LULUCF) for all Annex I Parties decreased by 10.6 per cent, while total GHG emissions and removals including LULUCF decreased by 16.2 per cent. For Annex I Parties with economies in transition, GHG emissions excluding and including LULUCF decreased by 38.1 per cent and 49.7 per cent, respectively. For Annex I Parties that do not have economies in transition, GHG emissions excluding and including LULUCF increased by 1.9 per cent and 0.3 per cent, respectively. The information in this document is based on information in the national GHG inventory submissions of Annex I Parties received as at 20 October 2014. At the time of the publication of this document, the annual review process for GHG inventories from Annex I Parties was still ongoing; therefore, the data included in this document may not reflect the latest information provided by Parties. The latest GHG inventory data are available on the UNFCCC website.

* This document was submitted after the due date in order to take into account the latest submissions from Parties.

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Contents

		Paragraphs	*Page*
I.	Introduction	1–5	3
	A. Mandate	1	3
	B. Scope of the note	2–4	3
	C. Possible action by the Subsidiary Body for Implementation and the Conference of the Parties	5	3
II.	Status of reporting	6–11	3
	A. Timeliness and completeness of submissions	6–8	3
	B. Recalculations	9–11	4
III.	Overview of emission trends and sources in Annex I Parties	12–29	6
	A. Total aggregate greenhouse gas emissions	12–16	6
	B. Greenhouse gas emissions by gas	17–19	10
	C. Greenhouse gas emissions by sector	20–26	10
	D. Emission data for individual Annex I Parties	27–29	13

I. Introduction

A. Mandate

1. The Conference of the Parties (COP), by decisions 9/CP.2, 3/CP.5 and 18/CP.8, requested Parties included in Annex I to the Convention (Annex I Parties) to submit national inventory data on greenhouse gas (GHG) emissions by sources and removals by sinks by 15 April each year. Under the "Guidelines for the technical review of greenhouse gas inventories from Parties included in Annex I to the Convention", adopted by the COP in decision 19/CP.8, the secretariat was requested[1] to prepare annually a report on GHG inventory data submitted by Annex I Parties, for consideration by the COP and the Subsidiary Body for Implementation (SBI).

B. Scope of the note

2. This document shows the status of reporting of GHG inventories by Annex I Parties in 2014 (chapter II) and provides a summary of the latest available data on GHG emissions and removals for the period 1990–2012 (chapter III). Data are provided for carbon dioxide (CO_2), methane (CH_4) and nitrous oxide (N_2O), as well as for hydrofluorocarbons (HFCs), perfluorocarbons (PFCs) and sulphur hexafluoride (SF_6) taken together. Data are also provided on total[2] aggregate[3] GHG emissions, both including and excluding net GHG emissions and removals from land use, land-use change and forestry (LULUCF).

3. The information provided in this document is based on information in the national GHG inventories received from all 43 Annex I Parties as at 20 October 2014.

4. At the time of the publication of this document, the annual review process was still ongoing; therefore, the data presented here may not reflect the latest information provided by Parties. The latest GHG inventory data are available on the UNFCCC website.[4]

C. Possible action by the Subsidiary Body for Implementation and the Conference of the Parties

5. The SBI may wish to take note of the information contained in this document and seek further guidance from the COP, as appropriate.

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[1] FCCC/CP/2002/8, annex II, paragraphs 42 and 43.

[2] The term "total" implies that emissions from the sectors of the common reporting format are summed; the inclusion of emissions from land use, land-use change and forestry in the sum is indicated separately.

[3] The term "aggregate" implies that GHG emissions and removals are calculated as a weighted sum of CO_2, CH_4, N_2O, HFCs, PFCs and SF_6 using the global warming potentials agreed under the Convention.

[4] <http://unfccc.int/national_reports/annex_i_ghg_inventories/national_inventories_submissions/items/8108.php>.

II. Status of reporting

A. Timeliness and completeness of submissions

6. In accordance with the UNFCCC Annex I reporting guidelines on annual inventories,[5] Annex I Parties are required to submit annually a national inventory report (NIR) and common reporting format (CRF) tables containing data from the base year up to two years prior to the year of submission. In 2014, all 43 Annex I Parties provided GHG data for all years from 1990[6] to 2012.

7. By the due date of 15 April 2014, CRF tables had been received from all 43 Parties and NIRs had been received from 40 Parties. Within six weeks of that deadline, a total of 42 Parties had submitted their NIRs; while Monaco submitted its NIR after that six-week period, on 30 June 2014. The dates of the initial submissions of the CRF tables are shown in table 1.

Table 1
Greenhouse gas inventory submissions from Annex I Parties in 2014

Party	*CRF submission date*[a]	*Party*	*CRF submission date*[a]
Australia	15 April 2014	Liechtenstein	15 April 2014
Austria	14 April 2014	Lithuania	15 April 2014
Belarus	15 April 2014	Luxembourg	15 April 2014
Belgium	10 April 2014	Malta	9 April 2014
Bulgaria	15 April 2014	Monaco	15 April 2014
Canada	11 April 2014	Netherlands	15 April 2014
Croatia	11 April 2014	New Zealand	11 April 2014
Cyprus	15 April 2014	Norway	10 April 2014
Czech Republic	15 April 2014	Poland	11 April 2014
Denmark	15 April 2014	Portugal	15 April 2014
Estonia	15 April 2014	Romania	12 April 2014
European Union	15 April 2014	Russian Federation	15 April 2014
Finland	15 April 2014	Slovakia	15 April 2014
France	15 April 2014	Slovenia	15 April 2014
Germany	15 April 2014	Spain	15 April 2014
Greece	15 April 2014	Sweden	11 April 2014
Hungary	15 April 2014	Switzerland	15 April 2014
Iceland	15 April 2014	Turkey	15 April 2014
Ireland	15 April 2014	Ukraine	12 April 2014
Italy	4 April 2014	United Kingdom	15 April 2014
Japan	15 April 2014	United States	12 April 2014
Latvia	15 April 2014		

Abbreviation: CRF = common reporting format.
[a] The dates of submission of the national inventory report may be different.

[5] "Updated UNFCCC reporting guidelines on annual inventories following incorporation of the provisions of decision 14/CP.11" (FCCC/SBSTA/2006/9).
[6] Unless otherwise specified, base year data are used instead of 1990 data. The Parties that may use a base year other than 1990, as stipulated in decisions 9/CP.2 and 11/CP.4, provided data for their respective base years. Such Parties and their base years are Bulgaria (1988), Hungary (average of 1985–1987), Poland (1988), Romania (1989) and Slovenia (1986).

8. After the initial submissions, 17 Parties submitted revised versions of their CRF tables and 15 Parties resubmitted their NIRs.

B. Recalculations

9. In accordance with the UNFCCC Annex I reporting guidelines on annual inventories, Parties should, where necessary, conduct recalculations in order to improve the quality of their emission estimates and ensure the consistency of the time series.

10. In 2014 all Annex I Parties, with the exception of Belarus (excluding and including LULUCF) and Turkey (excluding LULUCF), reported recalculations that had an impact on their estimated GHG emissions for 1990 (see table 2). The recalculations resulted from changes in activity data, emission factors and methodologies. For total aggregate GHG emissions excluding LULUCF, the change was less than 1 per cent for 33 Parties and more than 2 per cent for three Parties. For total aggregate GHG emissions including LULUCF, the change was less than 1 per cent for 20 Parties and more than 5 per cent for seven Parties.

Table 2
Inventory recalculations by Annex I Parties in 2014

Party	*Impact on GHG emissions for 1990 excluding LULUCF (%)*	*Impact on GHG emissions for 1990 including LULUCF (%)*
Australia	–0.66	4.09
Austria	–0.09	–0.03
Belarus	0	0
Belgium	–0.19	–0.13
Bulgaria	–0.05	0.46
Canada	–0.03	–1.81
Croatia	0.77	0.58
Cyprus	–0.05	–0.05
Czech Republic	–0.02	0.07
Denmark	–0.10	–0.34
Estonia	0.21	0.35
European Union	0.93	0.91
Finland	–0.18	2.47
France	–0.01	–1.10
Germany	–0.18	0.74
Greece	0.33	0.72
Hungary	–1.66	–1.65
Iceland	–0.49	–0.29
Ireland	–0.002	0.66
Italy	0.01	1.70
Japan	–2.59	–2.51
Latvia	–0.38	58.40
Liechtenstein	–0.95	–0.99
Lithuania	–0.07	–0.09
Luxembourg	0.000	0.000
Malta	–0.73	1.88
Monaco	1.05	1.05

Party	*Impact on GHG emissions for 1990 excluding LULUCF (%)*	*Impact on GHG emissions for 1990 including LULUCF (%)*
Netherlands	0.000	0.01
New Zealand	1.50	–26.06
Norway	–0.09	14.69
Poland	1.11	–0.21
Portugal	–0.30	–15.80
Romania	4.29	7.13
Russian Federation	0.34	2.66
Slovakia	2.01	3.98
Slovenia	–0.04	69.56
Spain	0.34	–1.23
Sweden	–0.03	–4.33
Switzerland	–0.09	2.37
Turkey	0	–16.58
Ukraine	1.11	1.20
United Kingdom	0.73	0.46
United States	0.81	0.25

Abbreviations: GHG = greenhouse gas, LULUCF = land use, land-use change and forestry.

11. Table 3 presents a comparison of the estimates of total aggregate GHG emissions in 1990 reported in document FCCC/SBI/2013/19, containing information from Annex I Parties' 2013 GHG inventory submissions, and those reported in the present document on the basis of information in those Parties' 2014 submissions.

Table 3
Comparison of estimates reported in 2013 and 2014 of total aggregate greenhouse gas emissions of Annex I Parties in 1990

	2013	*2014*	*Explanation of the difference between the estimates reported in 2013 and 2014*
Total aggregate GHG emissions excluding LULUCF (thousands of Tg CO_2 eq)			
All Annex I Parties	19.00	19.07	Aggregate impact of inventory recalculations conducted by individual Annex I Parties
Annex I EIT Parties	5.93	5.97	Inventory recalculations, for example by Romania, the Russian Federation and Ukraine
Annex I non-EIT Parties	13.07	13.10	Inventory recalculations, for example by the United Kingdom and the United States of America
Total aggregate GHG emissions including LULUCF (thousands of Tg CO_2 eq)			
All Annex I Parties	17.87	17.98	Aggregate impact of inventory recalculations conducted by individual Annex I Parties
Annex I EIT Parties	5.81	5.94	Inventory recalculations, for example by Romania, the Russian Federation and Ukraine
Annex I non-EIT Parties	12.07	12.04	Inventory recalculations, for example by Japan, Portugal and Turkey

Abbreviations: EIT = economies in transition, GHG = greenhouse gas, LULUCF = land use, land-use change and forestry.

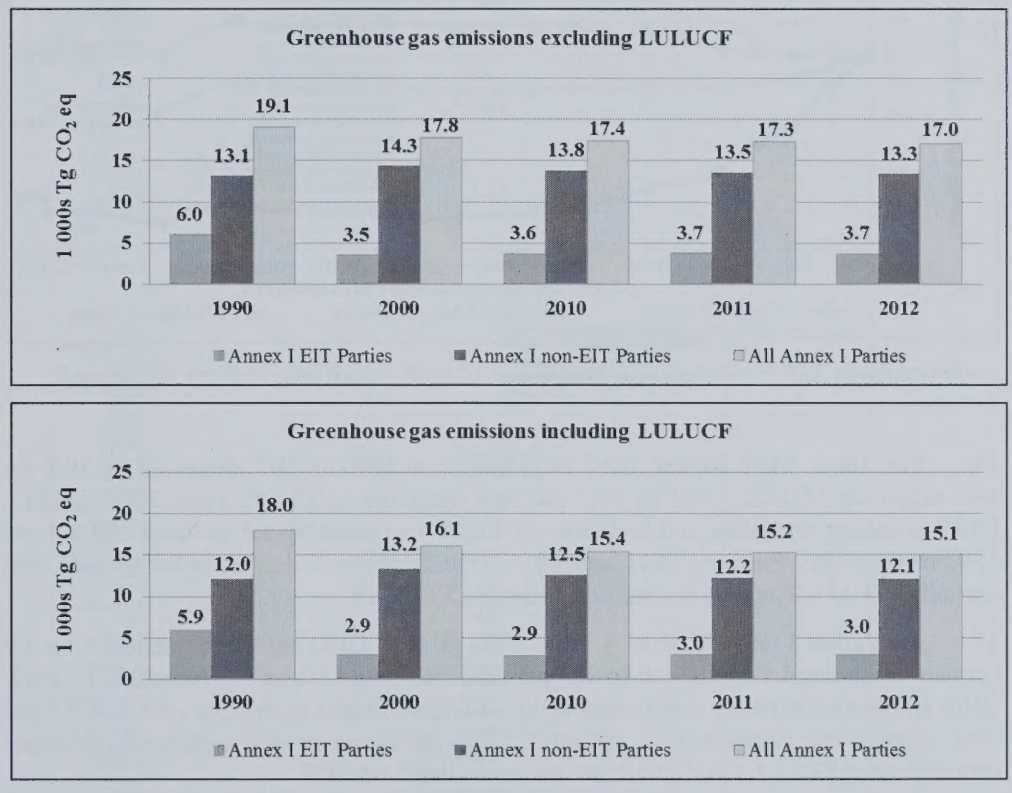
III. Overview of emission trends and sources in Annex I Parties

A. Total aggregate greenhouse gas emissions

12. Figures 1 and 2 show the trends in total aggregate GHG emissions from 1990 to 2012 for all Annex I Parties taken together, for Annex I Parties with economies in transition (Annex I EIT Parties) and for Annex I Parties that do not have economies in transition (Annex I non-EIT Parties).

13. From 1990 to 2012, total aggregate GHG emissions excluding emissions and removals from LULUCF for all Annex I Parties decreased by 10.6 per cent, from 19,069.7 Tg[7] CO_2 eq to 17,041.1 Tg CO_2 eq. During the same period, total aggregate GHG emissions including LULUCF decreased by 16.2 per cent, from 17,981.4 Tg CO_2 eq to 15,068.8 Tg CO_2 eq. From 2000 to 2012, GHG emissions excluding and including LULUCF decreased by 4.2 per cent and 6.5 per cent, respectively. Between 2011 and 2012, GHG emissions decreased by 1.3 per cent excluding LULUCF and by 1.0 per cent including LULUCF.

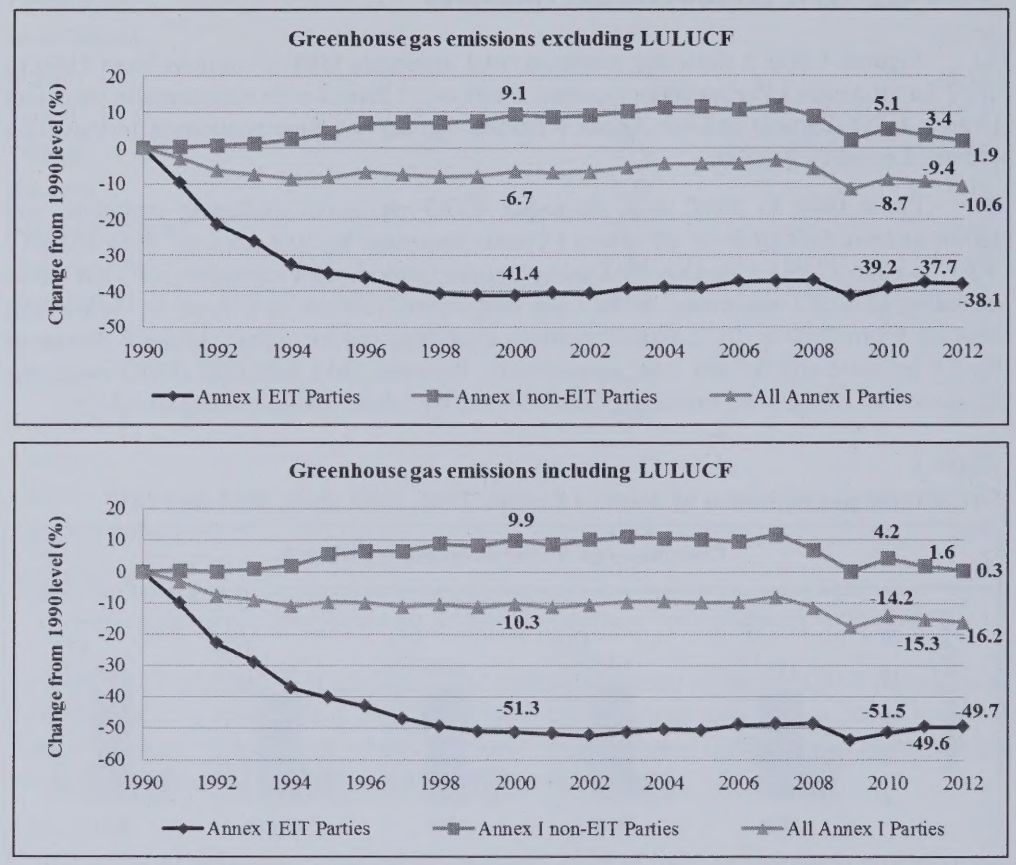
Figure 1
Greenhouse gas emissions of Annex I Parties, 1990, 2000, 2010, 2011 and 2012



Abbreviations: EIT = economies in transition, LULUCF = land use, land-use change and forestry.

[7] One teragram (Tg) equals one million tonnes.

Figure 2
Changes in greenhouse gas emissions of Annex I Parties, 1990–2012



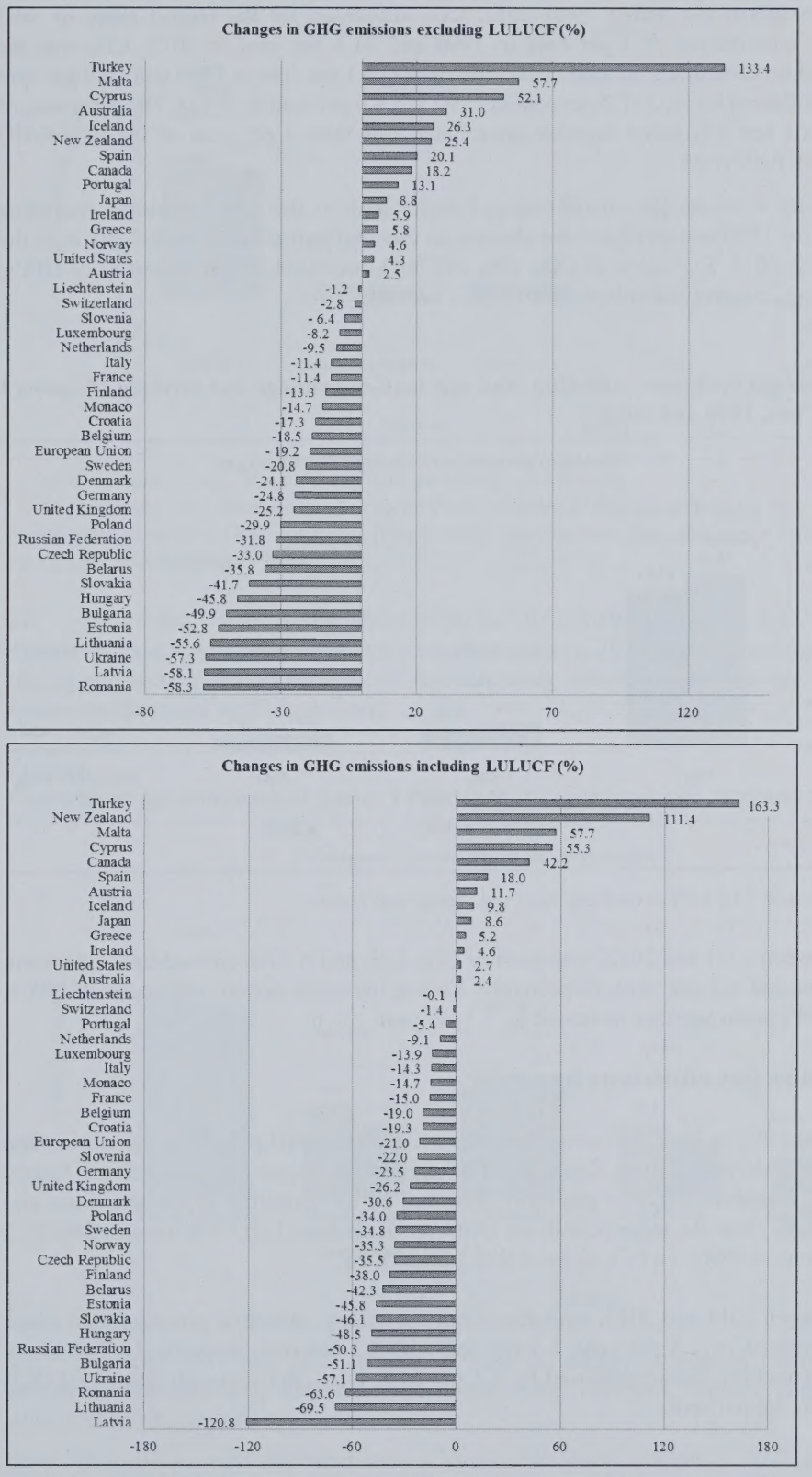
Abbreviations: EIT = economies in transition, LULUCF = land use, land-use change and forestry.

14. For Annex I EIT Parties, GHG emissions from 1990 to 2012 decreased by 38.1 per cent excluding LULUCF and by 49.7 per cent including LULUCF. From 2000 to 2012, GHG emissions excluding and including LULUCF increased by 5.7 per cent and 3.3 per cent, respectively. Between 2011 and 2012, GHG emissions decreased by 0.6 per cent excluding LULUCF and by 0.1 per cent including LULUCF.

15. For Annex I non-EIT Parties, from 1990 to 2012 GHG emissions increased by 1.9 per cent excluding LULUCF and by 0.3 per cent including LULUCF. From 2000 to 2012, GHG emissions excluding and including LULUCF decreased by 6.7 per cent and 8.7 per cent, respectively. Between 2011 and 2012, GHG emissions showed a decrease of 1.5 per cent excluding LULUCF and of 1.3 per cent including LULUCF.

16. The changes in total aggregate GHG emissions over the period 1990–2012 varied considerably among Parties (see figure 3). The largest decrease in emissions excluding LULUCF was in Romania (by 58.3 per cent), while the largest decrease in emissions including LULUCF was in Latvia (by 120.8 per cent). On the other hand, the greatest increase in emissions, both excluding LULUCF (by 133.4 per cent) and including LULUCF (by 163.3 per cent), occurred in Turkey.

Figure 3
Changes in total aggregate emissions of individual Annex I Parties, 1990–2012



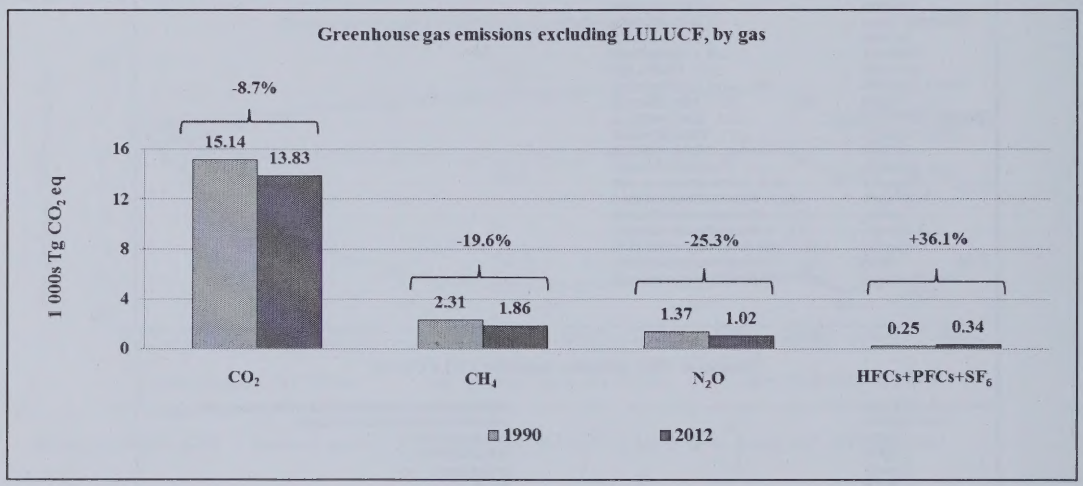
Abbreviations: GHG = greenhouse gas, LULUCF = land use, land-use change and forestry.

B. Greenhouse gas emissions by gas

17. Throughout the period 1990–2012, CO_2 accounted for the largest share of total emissions, contributing 79.4 per cent in 1990 and 81.3 per cent in 2012. CH_4 was the second-highest contributor to total GHG emissions (12.1 per cent in 1990 and 10.9 per cent in 2012), followed by N_2O (7.2 per cent in 1990 and 6.0 per cent in 2012). The emissions of HFCs, PFCs and SF_6 taken together contributed less than 2 per cent of the total GHG emissions in both years.

18. Figure 4 shows the contribution of each GHG to the total emissions excluding LULUCF for 1990 and 2012 and the changes in the total emissions of each GHG over the period 1990–2012. Emissions of CO_2, CH_4 and N_2O decreased, while emissions of HFCs, PFCs and SF_6 taken together increased by 36.1 per cent.

Figure 4
Greenhouse gas emissions excluding land use, land-use change and forestry of Annex I Parties by gas, 1990 and 2012



Abbreviation: LULUCF = land use, land-use change and forestry.

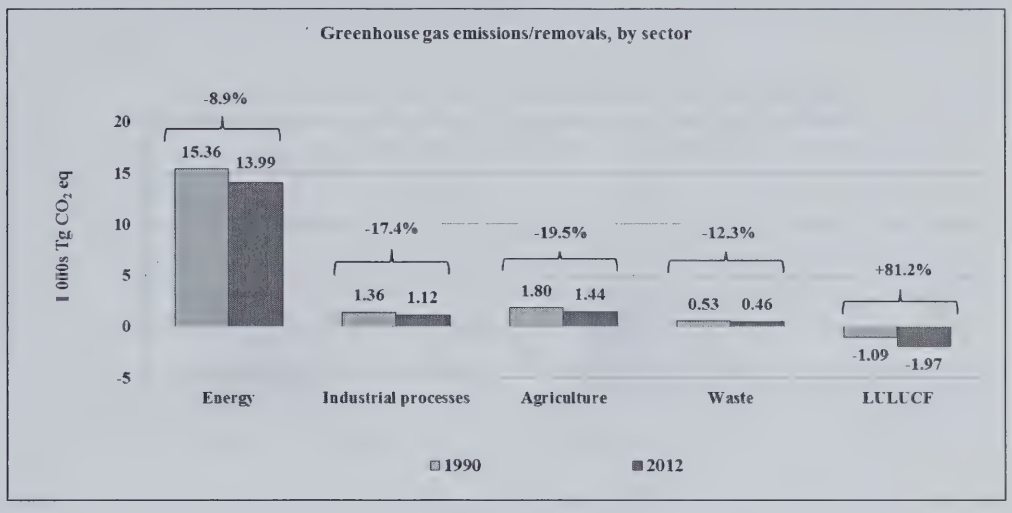
19. Between 2011 and 2012, emissions of CO_2, CH_4 and N_2O decreased by 1.5 per cent, 0.9 per cent and 1.3 per cent, respectively. During the same period, emissions of HFCs, PFCs and SF_6 taken together increased by 3.3 per cent.

C. Greenhouse gas emissions by sector

20. From 1990 to 2012, emissions from the energy, industrial processes, agriculture and waste sectors decreased (see figure 5). The agriculture sector experienced the largest decrease in emissions (by 19.5 per cent), followed by the industrial processes, waste and energy sectors. Over the same period, net GHG removals from LULUCF increased by 81.2 per cent, from –1,088.3 Tg CO_2 eq to –1,972.3 Tg CO_2 eq.

21. Between 2011 and 2012, emissions from the energy, industrial processes and waste sectors decreased by 1.5 per cent, 1.3 per cent and 1.3 per cent, respectively. Emissions from the agriculture sector increased by 0.1 per cent. Net GHG removals from LULUCF decreased by 3.5 per cent.

Figure 5
Greenhouse gas emissions and removals of Annex I Parties by sector, 1990 and 2012[a]

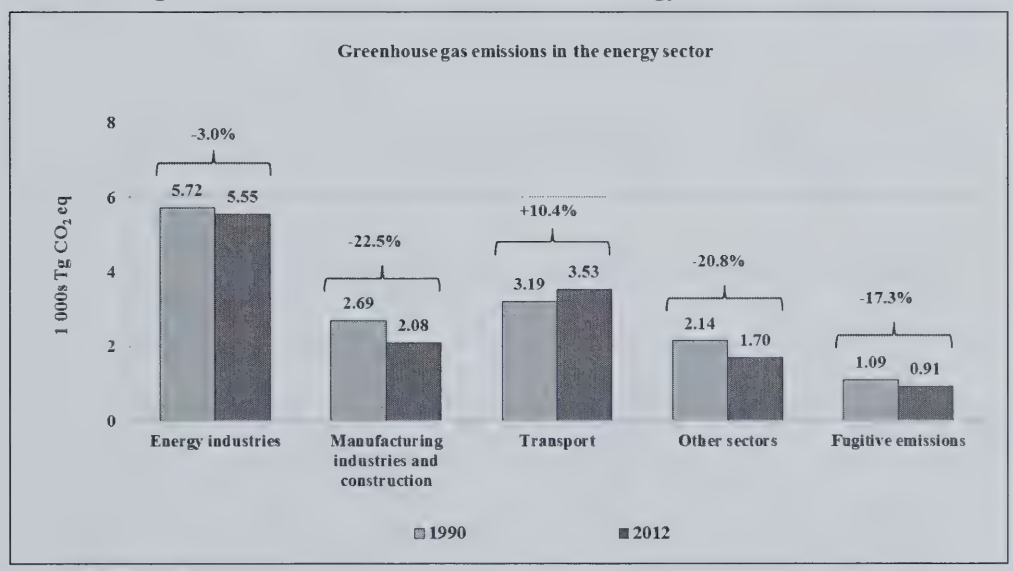


Abbreviation: LULUCF = land use, land-use change and forestry.

[a] The solvent and other product use sector is not included in this figure because its contribution to the total GHG emissions is very small. The emissions from this sector decreased by 32.9 per cent between 1990 and 2012.

22. Within the energy sector, from 1990 to 2012, GHG emissions decreased in all subsectors except transport, where emissions increased by 10.4 per cent (see figure 6). The largest emission reduction occurred in manufacturing industries and construction (where emissions decreased by 22.5 per cent).

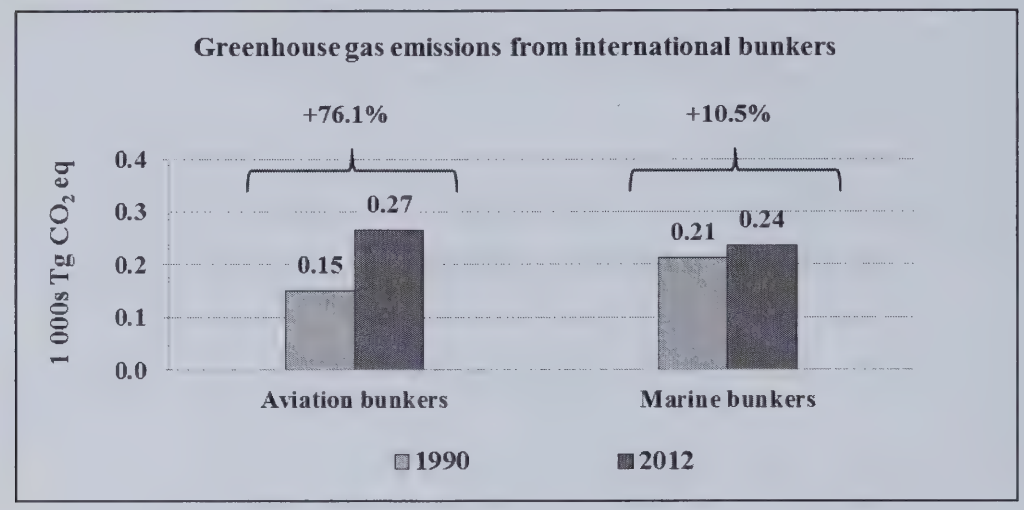
Figure 6
Greenhouse gas emissions of Annex I Parties in the energy sector, 1990 and 2012



23. Between 2011 and 2012, emissions from all energy subsectors (namely energy industries, manufacturing industries and construction, transport, fugitive emissions and other sectors) decreased.

24. Over the period 1990–2012, emissions from international bunkers increased, by 76.1 per cent for aviation and by 10.5 per cent for marine transportation (see figure 7).

Figure 7
Greenhouse gas emissions from international bunker fuels for Annex I Parties, 1990 and 2012



25. Between 2011 and 2012, emissions from international bunkers decreased, by 0.5 per cent for aviation and by 8.2 per cent for marine transportation.

26. A comparison of the percentage changes in the total aggregate GHG emissions from 1990 to the latest available year reported in document FCCC/SBI/2013/19, using information from Annex I Parties' 2013 inventory submissions, and those reported in the present document, using information from those Parties' 2014 inventory submissions, is presented in table 4. It also provides explanations for the differences in the estimates.

Table 4
Comparison of the changes in the total aggregate greenhouse gas emissions of Annex I Parties reported in 2013 and 2014

	2013	*2014*	*Explanation of the difference between the estimates reported in 2013 and 2014*
Changes in total aggregate GHG emissions excluding LULUCF from 1990 to the latest available year (%)			
All Annex I Parties	–9.3	–10.6	Combined impact of changes for individual Annex I Parties
Annex I EIT Parties	–36.8	–38.1	Decreases in emissions between 2011 and 2012, for example in Bulgaria, Poland and Ukraine
Annex I non-EIT Parties	3.2	1.9	Decreases in emissions between 2011 and 2012, for example in Finland, Italy and the United States of America
Changes in total aggregate GHG emissions including LULUCF from 1990 to the latest available year (%)			
All Annex I Parties	–14.5	–16.2	Combined impact of changes for individual Annex I Parties
Annex I EIT Parties	–49.1	–49.7	Decreases in emissions between 2011 and 2012, for example in Bulgaria, Hungary and Ukraine
Annex I non-EIT Parties	2.1	0.3	Decreases in emissions between 2011 and 2012, for example in Canada, Italy and the United States of America

Abbreviations: EIT = economies in transition, GHG = greenhouse gas, LULUCF = land use, land-use change and forestry.

D. Emission data for individual Annex I Parties

27. Tables 5–16 show detailed GHG data for individual Annex I Parties. Total aggregate GHG emissions excluding and including emissions and removals from LULUCF are provided in tables 5 and 6; emissions of CO_2, CH_4 and N_2O (excluding and including emissions and removals from LULUCF) are provided in tables 7–12; emissions of HFCs, PFCs and SF_6 taken together are provided in table 13; and emissions and removals from LULUCF are provided in tables 14–16.

28. Blank cells in the tables denote that either data were not available or notation keys, such as "NO" (not occurring), "NE" (not estimated), "NA" (not applicable), "IE" (included elsewhere) or "C" (confidential), were used to report emission data. Negative values denote removals; positive values denote emissions.

29. The changes in emissions from 1990 to 2012 were calculated using the exact (not rounded) values and may therefore differ from a ratio calculated with the rounded numbers provided in the tables. An en dash (–) signifies a percentage change exceeding 10,000 per cent.

Table 5

Total aggregate anthropogenic emissions of CO_2, CH_4, N_2O, HFCs, PFCs and SF_6 excluding emissions/removals from land use, land-use change and forestry, 1990, 2000, 2010, 2011 and 2012

	Gg CO_2 equivalent					*Change from 1990*
Party	*1990*	*2000*	*2010*	*2011*	*2012*	*to 2012 (%)*
Australia	414 974	489 813	540 211	541 543	543 648	31.0
Austria	78 086	80 277	84 808	82 761	80 059	2.5
Belarus*	139 151	79 165	89 426	87 500	89 283	–35.8
Belgium	142 952	145 857	130 611	120 146	116 520	–18.5
Bulgaria*[a]	121 880	59 471	60 272	65 996	61 046	–49.9
Canada	590 908	721 362	699 302	701 212	698 626	18.2
Croatia*	31 938	26 626	28 893	28 542	26 419	–17.3
Cyprus	6 088	8 904	9 989	9 682	9 259	52.1
Czech Republic*	196 146	146 330	137 008	135 277	131 466	–33.0
Denmark	70 020	69 955	63 007	58 052	53 118	–24.1
Estonia*	40 626	17 160	19 893	20 485	19 189	–52.8
European Union[b]	5 626 260	5 121 652	4 751 060	4 603 245	4 544 224	–19.2
Finland	70 329	69 188	74 397	66 861	60 966	–13.3
France	560 384	564 597	522 156	495 982	496 396	–11.4
Germany	1 248 049	1 040 367	946 388	928 695	939 083	–24.8
Greece	104 936	126 588	117 886	114 737	110 994	5.8
Hungary*[a]	114 447	76 504	67 638	66 034	61 981	–45.8
Iceland	3 538	3 903	4 646	4 441	4 468	26.3
Ireland	55 246	68 216	61 895	57 750	58 531	5.9
Italy	519 055	551 237	499 359	486 601	460 083	–11.4
Japan	1 234 320	1 340 523	1 256 095	1 306 518	1 343 118	8.8
Latvia*	26 213	9 994	11 988	11 140	10 978	–58.1
Liechtenstein	228	251	230	216	225	–1.2
Lithuania*	48 721	19 632	21 119	21 680	21 622	–55.6
Luxembourg	12 901	9 762	12 250	12 125	11 839	–8.2
Malta	1 992	2 551	2 994	3 027	3 140	57.7
Monaco	110	122	92	90	93	–14.7
Netherlands	211 850	213 023	209 286	195 064	191 669	–9.5
New Zealand	60 641	70 899	73 491	74 393	76 048	25.4
Norway	50 409	54 058	54 347	53 294	52 733	4.6
Poland*[a]	569 904	396 104	407 475	405 741	399 268	–29.9
Portugal	60 767	84 100	70 634	69 317	68 752	13.1
Romania*[a]	285 048	134 074	115 799	121 514	118 764	–58.3
Russian Federation*	3 363 342	2 053 321	2 221 342	2 284 293	2 295 045	–31.8
Slovakia*	73 227	48 947	45 382	44 698	42 710	–41.7
Slovenia*[a]	20 195	18 953	19 411	19 463	18 911	–6.4
Spain	283 749	380 004	347 181	345 887	340 809	20.1
Sweden	72 731	68 569	65 079	60 761	57 610	–20.8
Switzerland	53 000	51 821	54 148	50 028	51 493	–2.8
Turkey[c]	188 434	298 091	403 495	424 091	439 874	133.4
Ukraine*	940 175	412 496	385 601	408 448	401 019	–57.3
United Kingdom	783 412	704 435	613 218	569 273	586 357	–25.2
United States	6 219 524	7 075 609	6 854 728	6 716 993	6 487 847	4.3
Number of Parties showing a decrease in emissions by more than 1 per cent:						*28*
Number of Parties showing a change in emissions within 1 per cent:						*0*
Number of Parties showing an increase in emissions by more than 1 per cent:						*15*

* A Party with an economy in transition.

[a] Data for the base year defined by decisions 9/CP.2 and 11/CP.4 (Bulgaria (1988), Hungary (average of 1985–1987), Poland (1988), Romania (1989) and Slovenia (1986)) are used for this Party instead of 1990 data.

[b] Emission estimates of the European Union (EU) are as reported for the EU-28 and are reported separately from those of its member States.

[c] Decision 26/CP.7 invited Parties to recognize the special circumstances of Turkey, which place it in a situation different from that of other Parties included in Annex I to the Convention.

Table 6

Total aggregate anthropogenic emissions of CO_2, CH_4, N_2O, HFCs, PFCs and SF_6 including emissions/removals from land use, land-use change and forestry, 1990, 2000, 2010, 2011 and 2012

	Gg CO_2 equivalent					*Change from 1990*
Party	*1990*	*2000*	*2010*	*2011*	*2012*	*to 2012 (%)*
Australia	545 495	513 027	568 802	480 894	558 809	2.4
Austria	68 209	65 046	80 915	78 890	76 221	11.7
Belarus*	110 577	48 262	59 247	58 266	63 783	–42.3
Belgium	142 118	145 264	129 345	118 978	115 139	–19.0
Bulgaria*[a]	108 093	51 134	52 003	57 602	52 838	–51.1
Canada	519 888	669 850	775 045	778 022	739 487	42.2
Croatia*	25 428	19 048	21 888	22 394	20 528	–19.3
Cyprus	5 949	8 754	9 931	9 606	9 240	55.3
Czech Republic*	192 708	139 050	131 825	128 265	124 214	–35.5
Denmark	75 303	73 190	62 684	55 310	52 281	–30.6
Estonia*	31 806	18 967	15 314	17 602	17 238	–45.8
European Union[b]	5 367 940	4 819 245	4 439 385	4 291 788	4 240 671	–21.0
Finland	56 654	50 016	50 305	42 747	35 113	–38.0
France	531 764	539 104	485 390	456 280	452 142	–15.0
Germany	1 223 531	1 016 400	941 694	924 608	935 595	–23.5
Greece	102 821	124 580	115 031	111 806	108 129	5.2
Hungary*[a]	111 892	75 895	63 699	62 392	57 574	–48.5
Iceland	4 713	4 919	5 437	5 187	5 174	9.8
Ireland	52 934	67 378	58 037	54 111	55 386	4.6
Italy	515 446	534 263	468 239	467 463	441 527	–14.3
Japan	1 167 502	1 254 874	1 183 737	1 230 930	1 268 052	8.6
Latvia*	6 346	–4 097	858	–691	–1 323	–120.8
Liechtenstein	219	242	223	209	218	–0.1
Lithuania*	44 427	10 245	10 637	11 105	13 546	–69.5
Luxembourg	13 249	9 377	11 823	11 694	11 405	–13.9
Malta	1 987	2 544	2 987	3 020	3 133	57.7
Monaco	110	122	92	90	93	–14.7
Netherlands	214 863	215 395	212 593	198 468	195 205	–9.1
New Zealand	23 391	38 549	41 741	44 799	49 450	111.4
Norway	40 262	30 152	27 577	25 682	26 056	–35.3
Poland*[a]	556 907	365 504	378 321	370 124	367 413	–34.0
Portugal	58 478	74 051	55 402	52 908	55 302	–5.4
Romania*[a]	269 756	108 396	91 209	98 468	98 220	–63.6
Russian Federation*	3 527 913	1 646 819	1 654 100	1 710 856	1 753 029	–50.3
Slovakia*	64 219	39 193	39 798	38 494	34 607	–46.1
Slovenia*[a]	18 669	13 600	14 993	15 064	14 555	–22.0
Spain	260 444	348 824	313 570	312 196	307 280	18.0
Sweden	34 027	26 059	29 942	25 174	22 192	–34.8
Switzerland	51 078	51 833	53 214	48 131	50 364	–1.4
Turkey[c]	144 364	248 032	345 647	363 265	380 059	163.3
Ukraine*	870 438	361 665	347 660	401 993	373 809	–57.1
United Kingdom	785 291	702 343	605 969	561 788	579 379	–26.2
United States	5 402 124	6 414 839	5 906 734	5 772 687	5 546 304	2.7
Number of Parties showing a decrease in emissions by more than 1 per cent:						*29*
Number of Parties showing a change in emissions within 1 per cent:						*1*
Number of Parties showing an increase in emissions by more than 1 per cent:						*13*

* A Party with an economy in transition.

[a] Data for the base year defined by decisions 9/CP.2 and 11/CP.4 (Bulgaria (1988), Hungary (average of 1985–1987), Poland (1988), Romania (1989) and Slovenia (1986)) are used for this Party instead of 1990 data.

[b] Emission estimates of the European Union (EU) are as reported for the EU-28 and are reported separately from those of its member States.

[c] Decision 26/CP.7 invited Parties to recognize the special circumstances of Turkey, which place it in a situation different from that of other Parties included in Annex I to the Convention.

Table 7

Total anthropogenic CO_2 emissions excluding emissions/removals from land use, land-use change and forestry, 1990, 2000, 2010, 2011 and 2012

	Gg CO_2 equivalent					*Change from 1990*
Party	*1990*	*2000*	*2010*	*2011*	*2012*	*to 2012 (%)*
Australia	276 138	346 621	399 365	398 161	397 831	44.1
Austria	62 018	65 993	72 366	70 354	67 733	9.2
Belarus*	103 807	53 319	58 298	55 381	57 491	–44.6
Belgium	118 989	125 152	113 429	104 271	100 659	–15.4
Bulgaria*[a]	90 092	45 523	47 721	53 197	48 364	–46.3
Canada	459 038	567 738	554 408	557 290	550 547	19.9
Croatia*	23 340	20 100	21 330	20 918	19 233	–17.6
Cyprus	4 627	7 038	7 832	7 566	7 083	53.1
Czech Republic*	164 694	126 130	117 141	115 069	111 302	–32.4
Denmark	54 200	55 277	50 420	45 475	40 799	–24.7
Estonia*	36 701	15 149	17 803	18 427	17 079	–53.5
European Union[b]	4 437 028	4 135 980	3 907 816	3 767 424	3 717 117	–16.2
Finland	56 644	56 829	63 488	56 403	50 733	–10.4
France	398 770	415 079	391 076	364 819	368 845	–7.5
Germany	1 042 066	891 516	829 402	810 441	821 718	–21.1
Greece	82 998	102 572	96 758	94 251	90 472	9.0
Hungary*[a]	84 378	58 081	51 668	49 859	46 072	–45.4
Iceland	2 160	2 776	3 432	3 333	3 324	53.9
Ireland	32 424	44 689	41 292	37 716	38 011	17.2
Italy	434 656	462 278	424 993	413 379	386 667	–11.0
Japan	1 141 138	1 251 461	1 191 067	1 240 632	1 275 611	11.8
Latvia*	19 052	6 968	8 500	7 751	7 433	–61.0
Liechtenstein	201	223	194	180	189	–6.1
Lithuania*	35 785	11 834	13 692	14 029	14 182	–60.4
Luxembourg	11 950	8 780	11 255	11 138	10 870	–9.0
Malta	1 867	2 345	2 640	2 668	2 807	50.3
Monaco	105	113	82	79	83	–21.1
Netherlands	159 236	169 921	181 351	168 058	165 262	3.8
New Zealand	24 916	31 311	33 451	33 259	34 258	37.5
Norway	34 836	41 800	45 537	44 572	44 101	26.6
Poland*[a]	469 414	318 749	329 622	327 723	320 862	–31.6
Portugal	45 013	65 746	52 492	51 155	50 310	11.8
Romania*[a]	207 007	92 857	79 880	85 605	83 861	–59.5
Russian Federation*	2 505 380	1 476 998	1 602 426	1 648 129	1 656 774	–33.9
Slovakia*	61 805	41 033	37 431	37 233	35 238	–43.0
Slovenia*[a]	16 356	15 213	16 136	16 178	15 675	–4.2
Spain	227 508	308 026	280 378	280 923	276 637	21.6
Sweden	57 143	54 134	52 283	48 483	45 713	–20.0
Switzerland	44 639	43 952	45 923	41 848	43 251	–3.1
Turkey[c]	141 560	225 609	326 849	345 734	357 498	152.5
Ukraine*	718 894	293 509	289 664	305 464	302 749	–57.9
United Kingdom	591 499	556 667	504 998	464 036	483 424	–18.3
United States	5 100 606	5 963 063	5 712 757	5 583 379	5 375 003	5.4
Number of Parties showing a decrease in emissions by more than 1 per cent:						*27*
Number of Parties showing a change in emissions within 1 per cent:						*0*
Number of Parties showing an increase in emissions by more than 1 per cent:						*16*

* A Party with an economy in transition.

[a] Data for the base year defined by decisions 9/CP.2 and 11/CP.4 (Bulgaria (1988), Hungary (average of 1985–1987), Poland (1988), Romania (1989) and Slovenia (1986)) are used for this Party instead of 1990 data.

[b] Emission estimates of the European Union (EU) are as reported for the EU-28 and are reported separately from those of its member States.

[c] Decision 26/CP.7 invited Parties to recognize the special circumstances of Turkey, which place it in a situation different from that of other Parties included in Annex I to the Convention.

Table 8

Total anthropogenic CO_2 emissions including emissions/removals from land use, land-use change and forestry, 1990, 2000, 2010, 2011 and 2012

	Gg CO_2 equivalent					*Change from 1990*
Party	*1990*	*2000*	*2010*	*2011*	*2012*	*to 2012 (%)*
Australia	399 908	365 792	422 392	334 807	407 127	1.8
Austria	52 120	50 743	68 449	66 458	63 870	22.5
Belarus*	75 207	22 387	28 095	26 126	31 969	–57.5
Belgium	118 141	124 511	112 069	102 933	99 172	–16.1
Bulgaria*[a]	76 187	36 860	39 313	44 661	39 993	–47.5
Canada	382 119	512 865	612 826	616 538	575 009	50.5
Croatia*	16 808	12 457	14 315	14 751	13 304	–20.8
Cyprus	4 485	6 883	7 755	7 474	7 038	56.9
Czech Republic*	161 139	118 745	111 816	107 991	103 979	–35.5
Denmark	59 466	58 498	50 085	42 721	39 948	–32.8
Estonia*	27 879	16 952	13 218	15 537	15 121	–45.8
European Union[b]	4 167 603	3 821 423	3 585 152	3 444 809	3 401 452	–18.4
Finland	41 674	36 326	38 013	30 903	23 499	–43.6
France	367 626	385 762	350 851	321 600	321 039	–12.7
Germany	1 017 136	867 139	824 231	805 862	817 718	–19.6
Greece	80 838	100 411	93 892	91 304	87 571	8.3
Hungary*[a]	81 784	57 395	47 667	46 138	41 589	–49.1
Iceland	3 265	3 712	4 136	3 991	3 942	20.7
Ireland	30 074	43 798	37 344	33 998	34 788	15.7
Italy	429 213	444 257	393 426	393 585	366 803	–14.5
Japan	1 074 239	1 165 774	1 118 699	1 165 033	1 200 539	11.8
Latvia*	–1 012	–7 453	–2 915	–4 339	–5 125	406.4
Liechtenstein	191	214	187	173	182	–5.1
Lithuania*	31 441	2 385	3 171	3 411	6 058	–80.7
Luxembourg	12 295	8 392	10 826	10 705	10 433	–15.1
Malta	1 862	2 338	2 633	2 661	2 799	50.4
Monaco	105	113	82	79	83	–21.1
Netherlands	162 229	172 232	184 567	171 370	168 701	4.0
New Zealand	–12 399	–1 111	1 603	3 594	7 574	–161.1
Norway	24 674	17 863	18 720	16 915	17 378	–29.6
Poland*[a]	453 898	285 609	297 696	289 326	286 189	–36.9
Portugal	42 152	55 376	37 028	34 609	36 583	–13.2
Romania*[a]	191 715	67 165	55 288	62 546	63 290	–67.0
Russian Federation*	2 632 906	1 034 037	996 264	1 035 744	1 076 048	–59.1
Slovakia*	52 721	31 236	31 810	30 994	27 110	–48.6
Slovenia*[a]	14 816	9 846	11 704	11 764	11 300	–23.7
Spain	203 995	276 475	246 492	246 956	242 786	19.0
Sweden	18 361	11 554	17 019	12 786	10 195	–44.5
Switzerland	42 677	43 949	44 976	39 934	42 109	–1.3
Turkey[c]	97 490	175 550	269 000	284 908	297 683	205.3
Ukraine*	649 137	242 663	251 678	298 994	275 503	–57.6
United Kingdom	592 515	553 683	497 008	455 834	475 712	–19.7
United States	4 277 615	5 279 846	4 754 320	4 611 853	4 403 909	3.0
Number of Parties showing a decrease in emissions by more than 1 per cent:						*29*
Number of Parties showing a change in emissions within 1 per cent:						*0*
Number of Parties showing an increase in emissions by more than 1 per cent:						*14*

* A Party with an economy in transition.

[a] Data for the base year defined by decisions 9/CP.2 and 11/CP.4 (Bulgaria (1988), Hungary (average of 1985–1987), Poland (1988), Romania (1989) and Slovenia (1986)) are used for this Party instead of 1990 data.

[b] Emission estimates of the European Union (EU) are as reported for the EU-28 and are reported separately from those of its member States.

[c] Decision 26/CP.7 invited Parties to recognize the special circumstances of Turkey, which place it in a situation different from that of other Parties included in Annex I to the Convention.

Table 9

Total anthropogenic CH_4 emissions excluding emissions/removals from land use, land-use change and forestry, 1990, 2000, 2010, 2011 and 2012

	Gg CO_2 equivalent					*Change from 1990*
Party	*1990*	*2000*	*2010*	*2011*	*2012*	*to 2012 (%)*
Australia	115 184	115 036	109 063	110 275	111 709	–3.0
Austria	8 332	6 677	5 562	5 394	5 306	–36.3
Belarus*	15 217	11 422	15 222	15 476	15 391	1.1
Belgium	9 659	8 231	6 661	6 466	6 392	–33.8
Bulgaria*[a]	17 151	8 498	7 318	7 575	7 185	–58.1
Canada	72 003	94 680	88 598	88 579	90 563	25.8
Croatia*	3 697	3 009	3 687	3 626	3 423	–7.4
Cyprus	910	1 186	1 295	1 241	1 304	43.3
Czech Republic*	17 889	11 140	10 369	10 330	10 256	–42.7
Denmark	5 955	5 896	5 642	5 578	5 522	–7.3
Estonia*	1 681	1 027	968	924	932	–44.6
European Union[b]	601 173	495 133	408 801	401 008	398 234	–33.8
Finland	6 170	5 289	4 265	4 122	4 083	–33.8
France	59 751	60 136	53 433	52 133	51 745	–13.4
Germany	108 798	75 074	50 052	48 697	48 706	–55.2
Greece	10 611	11 022	9 899	9 784	9 706	–8.5
Hungary*[a]	12 638	9 314	8 156	7 986	7 990	–36.8
Iceland	437	468	488	473	457	4.6
Ireland	13 674	13 412	11 721	11 692	12 074	–11.7
Italy	43 766	45 850	37 233	35 722	34 747	–20.6
Japan	32 415	25 999	20 695	20 287	20 007	–38.3
Latvia*	3 344	1 609	1 655	1 567	1 631	–51.2
Liechtenstein	14	13	15	15	16	9.9
Lithuania*	5 750	3 164	3 208	3 071	3 051	–46.9
Luxembourg	462	470	447	430	423	–8.4
Malta	73	125	174	166	104	42.3
Monaco	1.84	1.06	0.74	0.74	0.77	–58.4
Netherlands	25 707	19 924	15 940	15 262	14 945	–41.9
New Zealand	26 835	29 479	28 516	28 626	29 038	8.2
Norway	4 960	4 952	4 420	4 283	4 227	–14.8
Poland*[a]	55 875	43 490	41 287	40 503	41 033	–26.6
Portugal	10 203	12 069	11 923	12 113	12 250	20.1
Romania*[a]	46 577	26 415	22 590	22 231	22 237	–52.3
Russian Federation*	593 398	434 602	491 210	506 760	502 547	–15.3
Slovakia*	4 811	4 243	4 089	4 125	4 181	–13.1
Slovenia*[a]	2 165	2 152	1 921	1 916	1 868	–13.7
Spain	26 218	31 841	32 337	32 306	32 318	23.3
Sweden	6 985	6 270	5 047	4 944	4 807	–31.2
Switzerland	4 638	4 017	3 801	3 753	3 718	–19.8
Turkey[c]	34 054	53 683	57 303	58 049	61 623	81.0
Ukraine*	162 352	92 733	66 483	70 388	66 166	–59.2
United Kingdom	109 059	89 118	56 698	54 818	52 784	–51.6
United States	633 202	588 611	580 803	564 340	552 010	–12.8
Number of Parties showing a decrease in emissions by more than 1 per cent:						*33*
Number of Parties showing a change in emissions within 1 per cent:						*0*
Number of Parties showing an increase in emissions by more than 1 per cent:						*10*

* A Party with an economy in transition.

[a] Data for the base year defined by decisions 9/CP.2 and 11/CP.4 (Bulgaria (1988), Hungary (average of 1985–1987), Poland (1988), Romania (1989) and Slovenia (1986)) are used for this Party instead of 1990 data.

[b] Emission estimates of the European Union (EU) are as reported for the EU-28 and are reported separately from those of its member States.

[c] Decision 26/CP.7 invited Parties to recognize the special circumstances of Turkey, which place it in a situation different from that of other Parties included in Annex I to the Convention.

Table 10
Total anthropogenic CH_4 emissions including emissions/removals from land use, land-use change and forestry, 1990, 2000, 2010, 2011 and 2012

	Gg CO_2 equivalent					*Change from 1990*
Party	*1990*	*2000*	*2010*	*2011*	*2012*	*to 2012 (%)*
Australia	119 980	117 824	112 662	111 962	115 860	–3.4
Austria	8 333	6 677	5 562	5 394	5 306	–36.3
Belarus*	15 224	11 430	15 227	15 481	15 395	1.1
Belgium	9 660	8 231	6 661	6 472	6 392	–33.8
Bulgaria*[a]	17 153	8 669	7 337	7 596	7 224	–57.9
Canada	75 706	96 849	99 324	99 470	100 823	33.2
Croatia*	3 709	3 059	3 688	3 633	3 445	–7.1
Cyprus	910	1 186	1 297	1 243	1 306	43.5
Czech Republic*	17 985	11 229	10 493	10 384	10 314	–42.7
Denmark	5 955	5 896	5 642	5 578	5 522	–7.3
Estonia*	1 681	1 028	968	925	932	–44.6
European Union[b]	606 683	500 785	413 136	405 372	403 389	–33.5
Finland	6 215	5 340	4 321	4 180	4 140	–33.4
France	60 901	61 720	54 632	53 309	52 886	–13.2
Germany	108 807	75 078	50 056	48 698	48 708	–55.2
Greece	10 652	11 162	9 909	9 798	9 738	–8.6
Hungary*[a]	12 669	9 345	8 179	8 023	8 024	–36.7
Iceland	438	475	496	481	465	6.2
Ireland	13 683	13 420	11 741	11 700	12 076	–11.7
Italy	45 254	46 692	37 547	36 208	35 793	–20.9
Japan	32 423	26 007	20 699	20 292	20 008	–38.3
Latvia*	3 385	1 724	1 714	1 603	1 668	–50.7
Liechtenstein	14	13	15	15	16	9.9
Lithuania*	5 752	3 167	3 209	3 073	3 052	–46.9
Luxembourg	462	470	447	430	423	–8.4
Malta	73	125	174	166	104	42.3
Monaco	1.84	1.06	0.74	0.74	0.77	–58.4
Netherlands	25 714	19 931	15 948	15 270	14 953	–41.8
New Zealand	26 886	29 533	28 590	28 675	29 103	8.2
Norway	4 961	4 952	4 422	4 283	4 227	–14.8
Poland*[a]	58 065	45 696	43 521	42 742	43 305	–25.4
Portugal	10 386	12 234	12 058	12 167	12 419	19.6
Romania*[a]	46 577	26 425	22 591	22 240	22 256	–52.2
Russian Federation*	608 928	450 555	509 581	525 103	520 754	–14.5
Slovakia*	4 822	4 258	4 111	4 147	4 195	–13.0
Slovenia*[a]	2 165	2 152	1 921	1 917	1 873	–13.5
Spain	26 391	31 999	32 401	32 385	32 454	23.0
Sweden	6 987	6 273	5 048	4 946	4 808	–31.2
Switzerland	4 668	4 027	3 810	3 765	3 727	–20.2
Turkey[c]	34 054	53 683	57 303	58 049	61 623	81.0
Ukraine*	162 360	92 736	66 509	70 391	66 187	–59.2
United Kingdom	109 079	89 158	56 739	54 861	52 849	–51.6
United States	635 702	600 114	585 530	578 292	567 279	–10.8
Number of Parties showing a decrease in emissions by more than 1 per cent:						*33*
Number of Parties showing a change in emissions within 1 per cent:						*0*
Number of Parties showing an increase in emissions by more than 1 per cent:						*10*

* A Party with an economy in transition.

[a] Data for the base year defined by decisions 9/CP.2 and 11/CP.4 (Bulgaria (1988), Hungary (average of 1985–1987), Poland (1988), Romania (1989) and Slovenia (1986)) are used for this Party instead of 1990 data.

[b] Emission estimates of the European Union (EU) are as reported for the EU-28 and are reported separately from those of its member States.

[c] Decision 26/CP.7 invited Parties to recognize the special circumstances of Turkey, which place it in a situation different from that of other Parties included in Annex I to the Convention.

Table 11

Total anthropogenic N_2O emissions excluding emissions/removals from land use, land-use change and forestry, 1990, 2000, 2010, 2011 and 2012

	Gg CO_2 equivalent					*Change from 1990*
Party	*1990*	*2000*	*2010*	*2011*	*2012*	*to 2012 (%)*
Australia	18 354	25 478	24 452	25 201	25 775	40.4
Austria	6 198	6 291	5 179	5 283	5 222	–15.8
Belarus*	20 127	14 414	15 891	16 640	16 400	–18.5
Belgium	10 900	11 030	8 329	7 037	6 991	–35.9
Bulgaria*[a]	14 633	5 425	4 848	4 798	5 028	–65.6
Canada	49 169	48 645	47 157	45 918	47 733	–2.9
Croatia*	3 954	3 335	3 395	3 504	3 268	–17.4
Cyprus	551	651	613	615	612	11.1
Czech Republic*	13 483	8 768	7 701	7 861	7 727	–42.7
Denmark	9 821	8 091	6 070	6 136	5 992	–39.0
Estonia*	2 244	912	967	972	1 009	–55.0
European Union[b]	527 804	423 115	343 094	340 892	333 639	–36.8
Finland	7 400	6 501	5 438	5 266	5 185	–29.9
France	91 626	78 465	60 600	61 160	57 766	–37.0
Germany	85 321	61 256	54 562	56 846	55 798	–34.6
Greece	10 225	8 641	7 513	7 209	6 811	–33.4
Hungary*[a]	17 089	8 466	6 540	6 824	6 757	–60.5
Iceland	521	495	453	448	458	–12.1
Ireland	9 112	9 485	7 837	7 288	7 417	–18.6
Italy	37 462	39 561	27 129	26 889	27 754	–25.9
Japan	29 728	27 491	20 770	20 494	20 231	–31.9
Latvia*	3 816	1 410	1 748	1 735	1 816	–52.4
Liechtenstein	13	12	13	13	13	–2.1
Lithuania*	7 186	4 620	4 020	4 352	4 144	–42.3
Luxembourg	476	481	474	482	471	–1.1
Malta	52	71	57	57	58	11.3
Monaco	1.78	3.44	2.75	2.73	2.93	65.0
Netherlands	19 992	17 412	9 346	9 281	9 061	–54.7
New Zealand	8 246	9 787	10 385	10 644	10 886	32.0
Norway	5 043	4 727	3 194	3 203	3 200	–36.5
Poland*[a]	44 487	32 337	29 716	30 031	29 590	–33.5
Portugal	5 551	6 033	4 808	4 513	4 479	–19.3
Romania*[a]	28 113	13 440	12 418	12 683	11 586	–58.8
Russian Federation*	223 272	112 704	113 401	116 945	115 949	–48.1
Slovakia*	6 339	3 569	3 402	2 862	2 796	–55.9
Slovenia*[a]	1 388	1 426	1 109	1 107	1 107	–20.3
Spain	26 632	31 119	25 949	24 557	24 019	–9.8
Sweden	8 114	7 264	6 670	6 271	6 191	–23.7
Switzerland	3 478	3 123	3 094	3 028	3 022	–13.1
Turkey[c]	12 217	17 143	14 150	13 728	14 787	21.0
Ukraine*	58 726	26 140	28 762	31 869	31 367	–46.6
United Kingdom	69 081	47 539	37 089	35 709	35 411	–48.7
United States	395 512	384 139	403 606	403 931	395 794	0.1
Number of Parties showing a decrease in emissions by more than 1 per cent:						*36*
Number of Parties showing a change in emissions within 1 per cent:						*1*
Number of Parties showing an increase in emissions by more than 1 per cent:						*6*

* A Party with an economy in transition.

[a] Data for the base year defined by decisions 9/CP.2 and 11/CP.4 (Bulgaria (1988), Hungary (average of 1985–1987), Poland (1988), Romania (1989) and Slovenia (1986)) are used for this Party instead of 1990 data.

[b] Emission estimates of the European Union (EU) are as reported for the EU-28 and are reported separately from those of its member States.

[c] Decision 26/CP.7 invited Parties to recognize the special circumstances of Turkey, which place it in a situation different from that of other Parties included in Annex I to the Convention.

Table 12
Total anthropogenic N_2O emissions including emissions/removals from land use, land-use change and forestry, 1990, 2000, 2010, 2011 and 2012

	Gg CO_2 equivalent					*Change from 1990*
Party	*1990*	*2000*	*2010*	*2011*	*2012*	*to 2012 (%)*
Australia	20 309	26 733	26 416	26 219	27 489	35.4
Austria	6 218	6 310	5 202	5 307	5 247	–15.6
Belarus*	20 145	14 435	15 909	16 657	16 416	–18.5
Belgium	10 913	11 078	8 423	7 201	7 098	–35.0
Bulgaria*[a]	14 749	5 580	4 968	4 919	5 153	–65.1
Canada	51 365	49 837	53 756	52 588	53 871	4.9
Croatia*	3 963	3 349	3 403	3 515	3 284	–17.1
Cyprus	553	655	630	630	635	14.7
Czech Republic*	13 504	8 784	7 719	7 872	7 739	–42.7
Denmark	9 838	8 106	6 082	6 149	6 005	–39.0
Estonia*	2 246	914	974	979	1 016	–54.7
European Union[b]	533 400	429 612	349 747	347 686	340 596	–36.1
Finland	8 650	7 782	6 765	6 595	6 510	–24.7
France	93 000	80 705	62 860	63 501	60 177	–35.3
Germany	85 724	61 662	55 035	57 338	56 307	–34.3
Greece	10 229	8 655	7 514	7 210	6 814	–33.4
Hungary*[a]	17 097	8 511	6 579	6 865	6 800	–60.2
Iceland	589	567	532	527	538	–8.8
Ireland	9 140	9 530	7 907	7 361	7 493	–18.0
Italy	37 808	39 765	27 264	27 059	28 016	–25.9
Japan	29 800	27 521	20 777	20 500	20 236	–32.1
Latvia*	3 973	1 625	1 974	1 958	2 037	–48.7
Liechtenstein	13	12	13	13	13	–2.1
Lithuania*	7 234	4 679	4 059	4 393	4 191	–42.1
Luxembourg	479	484	476	484	473	–1.2
Malta	52	71	57	57	58	11.3
Monaco	1.80	3.46	2.77	2.75	2.95	64.1
Netherlands	20 005	17 465	9 428	9 367	9 150	–54.3
New Zealand	8 259	9 806	10 408	10 664	10 907	32.1
Norway	5 057	4 757	3 239	3 247	3 245	–35.8
Poland*[a]	44 816	32 670	30 255	30 571	30 135	–32.8
Portugal	5 939	6 189	4 905	4 595	4 588	–22.8
Romania*[a]	28 114	13 444	12 418	12 686	11 594	–58.8
Russian Federation*	244 787	133 210	133 951	137 550	136 452	–44.3
Slovakia*	6 404	3 597	3 416	2 876	2 808	–56.2
Slovenia*[a]	1 402	1 440	1 123	1 121	1 121	–20.0
Spain	26 667	31 331	26 160	24 753	24 206	–9.2
Sweden	8 190	7 330	6 795	6 377	6 290	–23.2
Switzerland	3 489	3 128	3 098	3 032	3 025	–13.3
Turkey[c]	12 217	17 143	14 150	13 728	14 787	21.0
Ukraine*	58 738	26 152	28 782	31 883	31 382	–46.6
United Kingdom	69 924	48 391	37 789	36 383	36 080	–48.4
United States	398 603	395 082	409 322	417 200	410 076	2.9
Number of Parties showing a decrease in emissions by more than 1 per cent:						*35*
Number of Parties showing a change in emissions within 1 per cent:						*0*
Number of Parties showing an increase in emissions by more than 1 per cent:						*8*

* A Party with an economy in transition.

[a] Data for the base year defined by decisions 9/CP.2 and 11/CP.4 (Bulgaria (1988), Hungary (average of 1985–1987), Poland (1988), Romania (1989) and Slovenia (1986)) are used for this Party instead of 1990 data.

[b] Emission estimates of the European Union (EU) are as reported for the EU-28 and are reported separately from those of its member States.

[c] Decision 26/CP.7 invited Parties to recognize the special circumstances of Turkey, which place it in a situation different from that of other Parties included in Annex I to the Convention.

Table 13
Total aggregate anthropogenic emissions of HFCs, PFCs and SF_6, 1990, 2000, 2010, 2011 and 2012

	Gg CO_2 equivalent					*Change from 1990*
Party	*1990*	*2000*	*2010*	*2011*	*2012*	*to 2012 (%)*
Australia	5 298	2 678	7 332	7 906	8 333	57.3
Austria	1 539	1 317	1 701	1 731	1 798	16.9
Belarus*		9.75	15.52	2.36	2.27	
Belgium	3 404	1 445	2 192	2 372	2 477	–27.2
Bulgaria*[a]	3	25	385	425	468	–
Canada	10 698	10 299	9 139	9 425	9 783	–8.6
Croatia*	948	183	482	495	495	–47.7
Cyprus		29	250	259	261	
Czech Republic*	79	292	1 797	2 017	2 181	2 655.4
Denmark	44	690	874	862	805	1 711.3
Estonia*		72	155	162	169	
European Union[b]	60 254	67 424	91 350	93 921	95 234	58.1
Finland	115	568	1 205	1 069	964	738.3
France	10 237	10 917	17 047	17 869	18 040	76.2
Germany	11 864	12 521	12 373	12 710	12 862	8.4
Greece	1 102	4 353	3 715	3 494	4 005	263.6
Hungary*[a]	342	644	1 275	1 366	1 161	239.8
Iceland	421	164	273	188	229	–45.5
Ireland	36	631	1 045	1 053	1 029	2 753.1
Italy	3 171	3 549	10 003	10 610	10 916	244.3
Japan	31 040	35 572	23 563	25 106	27 269	–12.1
Latvia*		6	85	87	97	
Liechtenstein	0.00	3.04	7.96	8.05	8.38	–
Lithuania*		14	198	228	245	
Luxembourg	13	31	74	75	76	475.3
Malta	0	10	123	136	172	–
Monaco	0.47	4.92	6.42	7.15	6.56	1 309.4
Netherlands	6 915	5 767	2 650	2 462	2 402	–65.3
New Zealand	645	322	1 139	1 865	1 866	189.2
Norway	5 570	2 580	1 195	1 237	1 205	–78.4
Poland*[a]	128	1 528	6 849	7 485	7 784	6 002.7
Portugal		252	1 411	1 537	1 713	
Romania*[a]	3 350	1 362	911	995	1 081	–67.7
Russian Federation*	41 293	29 017	14 305	12 459	19 775	–52.1
Slovakia*	271	102	461	478	495	82.4
Slovenia*[a]	287	162	245	262	261	–8.8
Spain	3 391	9 018	8 517	8 102	7 835	131.1
Sweden	488	902	1 079	1 064	899	83.9
Switzerland	244	728	1 330	1 400	1 502	516.0
Turkey[c]	603	1 656	5 193	6 579	5 965	888.5
Ukraine*	203	114	691	726	738	263.0
United Kingdom	13 773	11 111	14 433	14 710	14 739	7.0
United States	90 205	139 797	157 562	165 342	165 040	83.0
Number of Parties showing a decrease in emissions by more than 1 per cent:						*10*
Number of Parties showing a change in emissions within 1 per cent:						*0*
Number of Parties showing an increase in emissions by more than 1 per cent:						*27*

* A Party with an economy in transition.

[a] Data for the base year defined by decisions 9/CP.2 and 11/CP.4 (Bulgaria (1988), Hungary (average of 1985–1987), Poland (1988), Romania (1989) and Slovenia (1986)) are used for this Party instead of 1990 data.

[b] Emission estimates of the European Union (EU) are as reported for the EU-28 and are reported separately from those of its member States.

[c] Decision 26/CP.7 invited Parties to recognize the special circumstances of Turkey, which place it in a situation different from that of other Parties included in Annex I to the Convention.

Table 14

Net anthropogenic CO_2 emissions and removals from land use, land-use change and forestry, 1990, 2000, 2010, 2011 and 2012

	Gg CO_2 equivalent					*Change from 1990*
Party	*1990*	*2000*	*2010*	*2011*	*2012*	*to 2012 (%)*
Australia	123 771	19 171	23 027	–63 354	9 297	–92.5
Austria	–9 898	–15 250	–3 917	–3 895	–3 864	–61.0
Belarus*	–28 599	–30 932	–30 203	–29 255	–25 521	–10.8
Belgium	–848	–641	–1 360	–1 338	–1 488	75.4
Bulgaria*[a]	–13 905	–8 663	–8 409	–8 536	–8 371	–39.8
Canada	–76 919	–54 874	58 418	59 248	24 463	–131.8
Croatia*	–6 531	–7 642	–7 016	–6 167	–5 929	–9.2
Cyprus	–142	–155	–77	–92	–44	–68.6
Czech Republic*	–3 555	–7 385	–5 325	–7 078	–7 323	106.0
Denmark	5 266	3 221	–335	–2 754	–850	–116.1
Estonia*	–8 822	1 803	–4 586	–2 890	–1 958	–77.8
European Union[b]	–269 426	–314 556	–322 664	–322 615	–315 665	17.2
Finland	–14 970	–20 503	–25 475	–25 500	–27 234	81.9
France	–31 144	–29 317	–40 225	–43 219	–47 806	53.5
Germany	–24 930	–24 377	–5 171	–4 579	–3 999	–84.0
Greece	–2 160	–2 161	–2 866	–2 947	–2 901	34.3
Hungary*[a]	–2 594	–686	–4 001	–3 721	–4 483	72.8
Iceland	1 105	936	704	658	618	–44.1
Ireland	–2 350	–891	–3 948	–3 719	–3 223	37.1
Italy	–5 443	–18 020	–31 567	–19 794	–19 864	264.9
Japan	–66 898	–85 687	–72 368	–75 599	–75 072	12.2
Latvia*	–20 064	–14 421	–11 416	–12 090	–12 559	–37.4
Liechtenstein	–9.47	–8.60	–7.16	–7.04	–6.93	–26.9
Lithuania*	–4 344	–9 449	–10 521	–10 618	–8 124	87.0
Luxembourg	345	–388	–429	–433	–437	–226.7
Malta	–5.21	–6.76	–7.27	–7.32	–7.22	38.6
Monaco	–0.03	–0.04	–0.04	–0.04	–0.04	13.9
Netherlands	2 993	2 311	3 216	3 311	3 439	14.9
New Zealand	–37 315	–32 422	–31 847	–29 665	–26 684	–28.5
Norway	–10 162	–23 938	–26 817	–27 657	–26 723	163.0
Poland*[a]	–15 516	–33 141	–31 927	–38 396	–34 672	123.5
Portugal	–2 860	–10 370	–15 464	–16 546	–13 727	379.9
Romania*[a]	–15 292	–25 692	–24 591	–23 058	–20 571	34.5
Russian Federation*	127 526	–442 962	–606 162	–612 385	–580 726	–555.4
Slovakia*	–9 084	–9 796	–5 621	–6 239	–8 128	–10.5
Slovenia*[a]	–1 540	–5 368	–4 433	–4 414	–4 375	184.1
Spain	–23 513	–31 551	–33 885	–33 967	–33 851	44.0
Sweden	–38 781	–42 580	–35 264	–35 696	–35 518	–8.4
Switzerland	–1 962	–3	–948	–1 914	–1 142	–41.8
Turkey[c]	–44 070	–50 059	–57 848	–60 826	–59 815	35.7
Ukraine*	–69 757	–50 846	–37 986	–6 471	–27 246	–60.9
United Kingdom	1 015	–2 985	–7 989	–8 202	–7 712	–859.5
United States	–822 991	–683 217	–958 437	–971 527	–971 094	18.0
Number of Parties showing a decrease in emissions by more than 1 per cent:						*21*
Number of Parties showing a change in emissions within 1 per cent:						*0*
Number of Parties showing an increase in emissions by more than 1 per cent:						*22*

* A Party with an economy in transition.

[a] Data for the base year defined by decisions 9/CP.2 and 11/CP.4 (Bulgaria (1988), Hungary (average of 1985–1987), Poland (1988), Romania (1989) and Slovenia (1986)) are used for this Party instead of 1990 data.

[b] Emission estimates of the European Union (EU) are as reported for the EU-28 and are reported separately from those of its member States.

[c] Decision 26/CP.7 invited Parties to recognize the special circumstances of Turkey, which place it in a situation different from that of other Parties included in Annex I to the Convention.

Table 15

Anthropogenic CH_4 emissions from land use, land-use change and forestry, 1990, 2000, 2010, 2011 and 2012

	Gg CO_2 equivalent					*Change from 1990*
Party	*1990*	*2000*	*2010*	*2011*	*2012*	*to 2012 (%)*
Australia	4 796	2 788	3 600	1 687	4 150	–13.5
Austria	0.58	0.12	0.14	0.13	0.16	–72.5
Belarus*	7.08	8.16	4.82	4.45	4.63	–34.6
Belgium	0.48	0.00		6.26		
Bulgaria*[a]	1	171	19	21	39	2 723.7
Canada	3 703	2 170	10 726	10 891	10 260	177.0
Croatia*	13	49	1	7	22	73.9
Cyprus	0.27	0.45	2.01	1.70	2.63	868.9
Czech Republic*	96	89	123	54	59	–39.3
Denmark	0.55	0.00	0.01	0.01	0.02	–95.5
Estonia*	0.39	1.68	0.13	0.12	0.07	–82.4
European Union[b]	5 510	5 652	4 335	4 365	5 155	–6.4
Finland	46	50	56	57	57	25.2
France	1 150	1 584	1 200	1 176	1 141	–0.8
Germany	8.59	3.65	3.54	1.46	1.85	–78.4
Greece	41	139	10	14	32	–22.1
Hungary*[a]	31	31	23	37	34	9.8
Iceland	1.60	7.80	8.34	8.33	8.34	421.3
Ireland	9.29	7.98	20.44	7.58	1.92	–79.4
Italy	1 488	842	313	486	1 046	–29.7
Japan	8.51	7.78	4.14	5.35	1.59	–81.3
Latvia*	41	115	60	37	37	–8.6
Liechtenstein						
Lithuania*	2.30	2.95	1.04	1.95	0.81	–64.8
Luxembourg						
Malta						
Monaco						
Netherlands	6.80	7.77	7.90	7.91	7.92	16.5
New Zealand	51	53	74	50	65	27.3
Norway	1.11	0.17	1.62	0.22	0.09	–92.3
Poland*[a]	2 190	2 207	2 234	2 239	2 272	3.8
Portugal	184	165	135	54	169	–7.8
Romania*[a]	0.26	10.15	0.58	8.61	18.64	7 022.6
Russian Federation*	15 529	15 953	18 370	18 343	18 207	17.2
Slovakia*	11	15	22	22	13	22.4
Slovenia*[a]		0.75	0.40	1.23	4.62	
Spain	173	158	63	79	136	–21.5
Sweden	1.72	2.95	0.71	2.13	0.95	–44.6
Switzerland	30.33	9.73	9.51	12.23	9.45	–68.8
Turkey[c]	0.04	0.07	0.01	0.01	0.04	0.5
Ukraine*	8.39	3.44	25.33	2.49	21.01	150.5
United Kingdom	21	40	41	43	65	214.4
United States	2 500	11 504	4 727	13 952	15 269	510.7
Number of Parties showing a decrease in emissions by more than 1 per cent:						*19*
Number of Parties showing a change in emissions within 1 per cent:						*2*
Number of Parties showing an increase in emissions by more than 1 per cent:						*16*

* A Party with an economy in transition.

[a] Data for the base year defined by decisions 9/CP.2 and 11/CP.4 (Bulgaria (1988), Hungary (average of 1985–1987), Poland (1988), Romania (1989) and Slovenia (1986)) are used for this Party instead of 1990 data.

[b] Emission estimates of the European Union (EU) are as reported for the EU-28 and are reported separately from those of its member States.

[c] Decision 26/CP.7 invited Parties to recognize the special circumstances of Turkey, which place it in a situation different from that of other Parties included in Annex I to the Convention.

Table 16
Anthropogenic N_2O emissions from land use, land-use change and forestry, 1990, 2000, 2010, 2011 and 2012

	Gg CO_2 equivalent					*Change from 1990*
Party	*1990*	*2000*	*2010*	*2011*	*2012*	*to 2012 (%)*
Australia	1 955	1 255	1 964	1 018	1 714	–12.3
Austria	20	19	24	24	25	23.6
Belarus*	18	21	19	16	16	–9.9
Belgium	13	48	94	164	106	707.0
Bulgaria*[a]	116	155	120	121	125	7.3
Canada	2 196	1 192	6 599	6 670	6 138	179.5
Croatia*	8	15	9	11	16	89.7
Cyprus	2	4	17	15	23	868.9
Czech Republic*	21	16	19	12	12	–40.5
Denmark	16	14	13	13	13	–19.7
Estonia*	1.50	1.78	6.64	6.81	6.97	363.3
European Union[b]	5 596	6 497	6 654	6 794	6 957	24.3
Finland	1 249	1 281	1 327	1 329	1 325	6.0
France	1 374	2 240	2 259	2 341	2 411	75.5
Germany	403	405	473	491	510	26.4
Greece	4.19	14.17	1.07	1.46	3.30	–21.3
Hungary*[a]	8	46	39	42	43	414.9
Iceland	69	73	79	79	80	15.9
Ireland	28	45	70	72	76	168.7
Italy	346	204	134	170	262	–24.5
Japan	72.02	30.40	6.66	6.01	4.70	–93.5
Latvia*	157	215	226	223	221	40.6
Liechtenstein	0.01	0.01	0.01	0.01	0.02	49.1
Lithuania*	48	58	39	42	47	–2.4
Luxembourg	2.85	2.82	2.53	2.49	2.45	–14.0
Malta						
Monaco	0.02	0.02	0.02	0.02	0.02	–18.1
Netherlands	13	53	82	85	89	575.2
New Zealand	13	19	23	20	21	58.5
Norway	14	31	45	45	45	225.3
Poland*[a]	329	334	539	540	545	65.9
Portugal	388	156	97	83	109	–72.0
Romania*[a]	0.14	4.22	0.55	3.81	7.93	5 557.1
Russian Federation*	21 516	20 506	20 550	20 605	20 502	–4.7
Slovakia*	65	27	14	14	12	–81.5
Slovenia*[a]	14	14	14	14	15	5.2
Spain	35	212	211	197	187	427.7
Sweden	76	66	126	107	99	29.6
Switzerland	10.54	4.94	3.89	4.42	3.67	–65.2
Turkey[c]	0.00	0.01	0.00	0.00	0.00	2.5
Ukraine*	12	12	20	13	15	25.5
United Kingdom	843	852	700	674	669	–20.6
United States	3 091	10 943	5 716	13 269	14 282	362.0
Number of Parties showing a decrease in emissions by more than 1 per cent:						*15*
Number of Parties showing a change in emissions within 1 per cent:						*0*
Number of Parties showing an increase in emissions by more than 1 per cent:						*27*

* A Party with an economy in transition.

[a] Data for the base year defined by decisions 9/CP.2 and 11/CP.4 (Bulgaria (1988), Hungary (average of 1985–1987), Poland (1988), Romania (1989) and Slovenia (1986)) are used for this Party instead of 1990 data.

[b] Emission estimates of the European Union (EU) are as reported for the EU-28 and are reported separately from those of its member States.

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[c] Decision 26/CP.7 invited Parties to recognize the special circumstances of Turkey, which place it in a situation different from that of other Parties included in Annex I to the Convention.